

CURRICULUM VITAE OF JAMES G. WETMUR

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Personal Information:

Date of Birth: July 1, 1941
Birthplace: New Castle, PA

Married, 3 children
Social Security Number: 205-32-0951

Education:

B.S., Yale University, Chemistry, 1963
Ph.D., California Institute of Technology, Chemistry, 1967 Thesis advisor: Norman Davidson

Professional Experience:

Professor of Microbiology and Human Genetics, Mount Sinai School of Medicine, New York, NY, 1994-present.
Visiting Scientist, Roche Molecular Systems, Alameda, CA, 1992
Professor of Microbiology, Mount Sinai School of Medicine, New York, NY, 1983-present
Associate Professor of Microbiology, Mount Sinai School of Medicine, New York, NY, 1974-1982
Assistant Professor of Chemistry and Biochemistry, University of Illinois, Urbana, IL, 1969-1974
Chief, Biochemistry Branch, U.S. Army Aeromedical Research Laboratory
Fort Rucker, Alabama (Captain, U.S. Army), 1967-1969

Honors and Service:

Eastman Kodak Prize in Chemistry, Caltech, 1967
Career Scientist Award, Health Research Council of New York City, 1975
Fellow, New York Academy of Sciences, 1985
Invited Expert Analyst, *Chemtracts - Biochemistry and Molecular Biology*, 1990-1995
DOE Site Visits: Hybridization Array Technologies at Argonne National Laboratory (1993, 1995)
NIH Study Sections (Recent only):
 Special: Molecular Genetics, SBIR: 1987-89; Genome: 1988, 1990; NCHGR: DNA Sequencing: 1992, 1998; Yeast Genome: 1996; NCI Program Projects: 1994, 1996
 Site Visits: Genome: Affymetrix (1992, 1995), Genome Therapeutics (1993), Cold Spring Harbor (1993); NCI: Cornell (1994, 1996), Baylor Medical/Genometrix (1996), Temple/Penn/Molecular Dynamics (1998)
 Chartered: Genome: 1992-1996

Professional Activities:

Memberships: American Society for Biochemistry and Molecular Biology (Federation)
American Chemical Society (Past section officer)
New York Science and Technology Forum
American Society of Human Genetics; American Society for Microbiology;
The Human Genome Organisation; Sigma Xi

Consulting: Enzo Biochem, Incorporated, 1984-1991
PolyProbe Research Program, 1992-present
Roche Molecular Systems, Hoffmann La-Roche, 1993-present
Cornell University Medical College, GenVec Oversight Committee, 1997-present

Positions Held at the New York Academy of Sciences:

Vice-President (Biological Sciences): 1986-88
Member of the Board of Governors and Executive Committee of the Board, 1986-88
Committee Chairman: Conferences, 1985-6; Publications (*Annals New York Acad. Sci.*), 1987-88

Current Committee Assignments at Mount Sinai:

Faculty Promotions
Basic Sciences Computer Committee
Chairman, Institutional Biological Safety Committee

Civic Activities:

Yale Alumni Schools Committee, 1976-present
Town Club, Scarsdale, 1976-present; Member of Schools and Parks and Recreation Committees
Voting Member, Administrative Committee of the Citizens' Nominating Committee,
Union Free School District #1, Towns of Scarsdale and Mamaroneck, NY

Teaching: (Complete courses or course director only; excludes seminar courses)

Microbiology:

Microbiology and infection (medical school microbiology)
Microbial and molecular biology
Research methods for biomedical sciences

Chemistry:

Physical chemistry - for biologists
Physical chemistry - quantum mechanics
Physical chemistry of macromolecules
Physical chemistry laboratory; Physical biochemistry laboratory

Ph.D. Theses Directed (excludes current students): 13

Physical Chemistry - 5; Biochemistry - 1; Microbiology - 6; Human Genetics - 1.

Research Support (active support; annual direct costs only):

P.I. Thermostable proteins with DNA substrates, Roche Molecular Systems, Inc., 7/23/95-7/22/2000, \$52,000.
P.I. Enhanced PCR Fidelity and Specificity, NIH R21HG01365, 8/15/96-7/31/98, \$100,000.
P.I. Lead Toxicity and the ALA-Dehydratase polymorphism, NIH R01ES05046, 5/1/92-4/30/98, \$150,000.
Co-P.I. (Philip J. Landrigan, P.I.) and Project Director, Project 7, Lead and organochlorines in New York City, NIH P42 ES07384, 5/1/95-3/31/2000, \$110,000.
With Anne L. Golden, P.I., Reproductive toxicity and occupational lead exposure, ATSDR, CDC, 10/1/96-9/30/99, 5% salary plus fringe benefits.

BIBLIOGRAPHY - JAMES G. WETMUR

Caltech:

- Wetmur, J.G., Davidson, N., and Scaletti, J.V., Properties of DNA of bacteriophage N1, a DNA with reversible circularity. *Biochem. Biophys. Res. Commun.* **25**, 684-688 (1966).
- Wetmur, J.G., Studies of the kinetics of renaturation of DNA, Ph.D. Dissertation, California Institute of Technology, 1967.
- Wetmur, J.G. and Davidson, N., Kinetics of renaturation of DNA. *J. Mol. Biol.* **31**, 349-370 (1968).

U.S. Army:

- Wetmur, J.G. and Wilson, C.R. Forms of closed circular DNA in rat liver during regeneration and following aminoazodye carcinogenesis, vol. AD-689451 [Chem. Abstr. **71**, 99828b]. U. S. Clearinghouse Fed. Sci. Tech. Inform., 7 pp, (1969).
- Shane, W.P., Wetmur, J.G., and Wilson, C.R. Temperature dependence of snake venom phospholipase A and related hemolysis, vol. AD-690800 [Chem. Abstr. **72**, 28477w, 1970]. U. S. Clearinghouse Fed. Sci. Tech. Inform., 8 pp, (1969).
- Wetmur, J.G. and Wilson, C.R. Automated column chromatographic analysis of deacylated phospholipids, vol. AD-695635 [Chem. Abstr. **72**, 87005p, 1970]. U. S. Clearinghouse Fed. Sci. Tech. Inform., 7 pp, (1969).

University of Illinois:

- Wetmur, J.G., Excluded volume effects on the rate of renaturation of DNA. *Biopolymers* **10**, 601-613 (1971).
- Lee, C.H. and Wetmur, J.G., Independence of length and temperature effects on the rate of helix formation between complementary ribopolymers. *Biopolymers* **11**, 549-561 (1972).
- Lee, C.H. and Wetmur, J.G., On the kinetics of helix formation between complementary ribohomopolymers and deoxyribohomopolymers. *Biopolymers* **11**, 1485-1497 (1972).
- Hutton, J.R. and Wetmur, J.G., Renaturation of DNA in the presence of ethidium bromide. *Biopolymers* **11**, 2337-2348 (1972).
- Lee, C.H. and Wetmur, J.G., Thermodynamic and kinetic studies of the interconversion of linear and circular λ b₂b₃c DNA in the presence of purine and ribonuclease A. *Biochem.* **11**, 4595-5602 (1972).
- Lee, C.H. and Wetmur, J.G., Physical studies of chloroacetaldehyde labelled fluorescent DNA. *Biochem. Biophys. Res. Commun.* **50**, 879-885 (1973).
- Hutton, J.R. and Wetmur, J.G., The effect of chemical modification on the rate of renaturation of DNA. Deaminated and glyoxalated DNA. *Biochem.* **12**, 558-563 (1973).
- Lee, C.H., Chang, C.-T., and Wetmur, J.G., Induced circular dichroism of DNA-dye complexes. *Biopolymers* **12**, 1099-1122 (1973).
- Hutton, J.R. and Wetmur, J.G., Renaturation of ϕ X174 DNA-RNA hybrid: RNA length effect and nucleation rate constant. *J. Mol. Biol.* **77**, 495-500 (1973).
- Hutton, J.R. and Wetmur, J.G., Length dependence of the kinetic complexity of mouse satellite DNA. *Biochem. Biophys. Res. Commun.* **52**, 1148-1155 (1973).
- Miller, S.J. and Wetmur, J.G., Electric dichroism of native DNA in an alternating field. *Biopolymers* **13**, 115-128 (1974).
- Chang, C.-T., Miller, S.J., and Wetmur, J.G., Physical studies of N-acetoxy-N-2-acetylaminofluorene

- modified DNA. *Biochem.* **13**, 2142-2148 (1974).
- Chang, C.-T., Hain, T.C., Hutton, J.R., and Wetmur, J.G., The effects of microscopic viscosity on the rate of renaturation of DNA. *Biopolymers* **13**, 1847-1858 (1974).
- Orosz, J.M. and Wetmur, J.G., *In vitro* iodination of DNA: Maximizing iodination while minimizing degradation; use of buoyant density shifts for DNA-DNA hybrid isolation. *Biochem.* **13**, 5467-5473 (1974).
- Miller, S.J. and Wetmur, J.G., Determination of the rate of renaturation of DNA by fluorescence depolarization. *Biopolymers* **13**, 2545-2551 (1974).
- Miller, S.J. and Wetmur, J.G., Physical properties of endonuclease S1 digestion products of DNA renaturation intermediates. *Biopolymers* **14**, 309-317 (1975).

Mount Sinai School of Medicine:

- Wetmur, J.G., Acceleration of DNA renaturation rates. *Biopolymers* **14**, 2517-2524 (1975).
- Wetmur, J.G., Sprouse, C.L., and Hutton, J.R., Isolation of genetically defined DNA segments by kinetic extraction. *Int. Virol.* **3**, 137 (1975).
- Hutton, J.R. and Wetmur, J.G., Activity of endonuclease S1 in denaturing solvents; dimethylsulfoxide, dimethylformamide, formamide and formaldehyde. *Biochem. Biophys. Res. Commun.* **66**, 942-968 (1975).
- Ruyechan, W.T. and Wetmur, J.G., Studies on the cooperative binding of *Escherichia coli* DNA unwinding protein to single-stranded DNA. *Biochem.* **14**, 5529-5534 (1975).
- Wetmur, J.G., Hybridization and renaturation kinetics of nucleic acids. *Annu. Rev. Biophys. Bioeng.* **5**, 337-361 (1976).
- Garro, A.J., Sprouse, C.L., and Wetmur, J.G., Association of the recombination-deficient phenotype of *Bacillus subtilis* *recC* strains with the presence of an SPO2 prophage. *J. Bact.* **126**, 556-558 (1976).
- Ruyechan, W.T. and Wetmur, J.G., Studies on the non-cooperative binding of the *Escherichia coli* DNA unwinding protein to single-stranded nucleic acids. *Biochem.* **15**, 5057-5064 (1976).
- Chan, H.C., Ruyechan, W.T., and Wetmur, J.G., *In vitro* iodination of low complexity nucleic acids without chain scission. *Biochem.* **15**, 5487-5490 (1976).
- Orosz, J.M. and Wetmur, J.G., DNA melting temperatures and renaturation rates in concentrated alkylammonium salt solutions. *Biopolymers* **16**, 1183-1199 (1977).
- Wetmur, J.G., Schwartz, J., and Elizan, T.S., Nucleic acid homology studies of viral nucleic acids in idiopathic Parkinson's disease. *Arch. Neurol.* **36**, 462-464 (1979).
- Elizan, T.S. and Wetmur, J.G., Detecting DNA of herpes simplex virus. *Arch. Neurol.* **37**, 253 (1980).
- Bradley, H.E., Wetmur, J.G., and Hodes, D.S., Tolerance in *Staphylococcus aureus*: Evidence for a bacteriophage role. *J. Inf. Dis.* **141**, 233-237 (1980).
- Wetmur, J.G., Ruyechan, W.T., and Douthart, R.J., Denaturation and renaturation of *Penicillium chrysogenum* mycophage RNA in tetraalkylammonium salt solutions. *Biochem.* **20**, 2999-3003 (1981).
- Kinberg-Calhoun, J. and Wetmur, J.G., Circular, but not circularly permuted, DNA reacts slower than linear DNA with complementary DNA. *Biochem.* **20**, 2645-2650 (1981).
- Wieder, R. and Wetmur, J.G., One hundred fold acceleration of DNA renaturation rates in solution. *Biopolymers* **20**, 1537-1547 (1981).
- Schneider, R.J. and Wetmur, J.G., The kinetics of transfer of *Escherichia coli* single strand DNA binding protein between single-stranded DNA molecules. *Biochem.* **21**, 608-615 (1982).
- Wieder, R. and Wetmur, J.G., Factors affecting the kinetics of DNA reassociation in phenol-water emulsion at high DNA concentrations. *Biopolymers* **21**, 665-677 (1982).

- Wetmur, J.G., Citation Classic: Wetmur, J.G. and Davidson, N., Kinetics of renaturation of DNA, *J. Mol. Biol.* **31**, 349-370 (1968). In: Current Contents, Life Sciences, Number 3, p. 17 (1983).
- Wetmur, J.G., Casals, J., and Elizan, T.S., DNA binding protein profiles in Alzheimer's disease. *J. Neurol. Sci.* **66**, 201-208 (1984).
- Wetmur, J.G., Bishop, D.F., Ostasiewicz, L., and Desnick, R.J., Molecular cloning of a cDNA for human delta-aminolevulinate dehydratase. *Gene* **43**, 123-130 (1986).
- Wetmur, J.G., Bishop, D.F., Cantelmo, C., and Desnick, R.J., Human delta-aminolevulinate dehydratase: Nucleotide sequence of a full-length cDNA clone. *Proc. Natl. Acad. Sci. U. S. A.* **83**, 7703-7707 (1986).
- Astrin, K., Bishop, D., Wetmur, J., Kaul, B., Davidov, B., and Desnick, R., The delta-aminolevulinate dehydratase isozymes and lead toxicity. In Mechanisms of Chemically Induced Porphyrinopathies, *Annals of the New York Academy of Sciences*, pp. 23-29 (1987).
- Potluri, V.R., Astrin, K., Wetmur, J.G., Bishop, D.F., and Desnick, R.J., Human delta-aminolevulinate dehydratase: Chromosomal localization to 9q34 by *in situ* hybridization. *Hum. Genet.* **76**, 236-239 (1987).
- Quartin, R.S. and Wetmur, J.G., The effect of ionic strength on the hybridization of oligodeoxynucleotides with reduced charge due to methylphosphonate linkages to unmodified oligodeoxynucleotides containing the complementary sequence. *Biochem.* **28**, 1040-1047 (1989).
- Quartin, R.S., Brakel, C.L., and Wetmur, J.G., Number and distribution of methylphosphonate linkages in oligodeoxynucleotides affect exo- and endonuclease sensitivity and ability to form RNase H substrates. *Nucleic Acids Res.* **17**, 7253-7262 (1989).
- Quartin, R.S., Plewinska, M., and Wetmur, J.G., Branch migration-mediated DNA labeling and cloning. *Biochem.* **28**, 8676-8682 (1989).
- Wetmur, J.G., Analysis: Lichter, *et al.*, High-resolution physical mapping of human chromosome 11 by *in situ* hybridization [*Science* **247**:64-69, 1990]. *Chemtracts - Biochem. Mol. Biol.* **1**, 219-221 (1990).
- Wetmur, J.G., Analysis: Yamamoto, *et al.*, Molecular genetic basis of the histo-blood group ABO system [*Nature* **345**:229-33, 1990]. *Chemtracts - Biochem. Mol. Biol.* **1**, 412-414 (1990).
- Weinstock, P.H. and Wetmur, J.G., Branch capture reactions: Effect of recipient structure. *Nucleic Acids Res.* **18**, 4207-4213 (1990).
- Wetmur, J.G., Analysis: Fodor, *et al.*, Light-directed, spatially addressable parallel chemical synthesis [*Science* **251**:767-773, 1991]. *Chemtracts - Biochem. Mol. Biol.* **2**, 207-210 (1991).
- Wetmur, J.G. Analysis: Chaillet, *et al.*, Parental-specific methylation of an imprinted transgene is established during gametogenesis and progressively changes during embryogenesis [*Cell* **66**:77-83, 1991]. *Chemtracts - Biochem. Mol. Biol.* **2**, 357-359 (1991).
- Plewinska, M., Thunell, S., Holmberg, L., Wetmur, J.G., and Desnick, R.J., Delta-aminolevulinate dehydratase deficiency: Identification of the molecular lesion in a severely affected homozygote. *Am. J. Hum. Genet.* **49**, 167-174 (1991).
- Astrin, K.H., Kaya, A.H., Wetmur, J.G., and Desnick, R.J., *Rsa*I polymorphism in the human δ -aminolevulinate dehydratase gene at 9q34. *Nucleic Acids Res.* **19**, 4307 (1991).
- Wetmur, J.G., Kaya, A.H., Plewinska, M., and Desnick, R.J., Molecular characterization of the human δ -aminolevulinate dehydratase² (ALAD²) allele: Implications for molecular screening of individuals for genetic susceptibility to lead poisoning. *Am. J. Hum. Genet.* **49**:757-763 (1991).
- Wetmur, J.G., Lehnert, G. & Desnick, R.J., The δ -aminolevulinate dehydratase polymorphism: Higher blood lead levels in lead workers and environmentally-exposed children with the 1-2 and 2-2 isozymes. *Environmental Research* **56**, 109-119 (1991).
- Wong, D.M., Weinstock, P.H., and Wetmur, J.G., Branch capture reactions: Displacers derived from

- asymmetric PCR. *Nucleic Acids Res.* **19**, 2251-2259 (1991).
- Wetmur, J.G., DNA probes: Applications of the principles of nucleic acid hybridization. *Crit. Rev. Biochem. Mol. Biol.* **26**, 227-259 (1991).
- Wetmur, J.G. Analysis: Meisel, *et al.*, Type III restriction enzymes need two inversely oriented recognition sites for DNA cleavage [*Nature* **355**:467-469, 1992]. *Chemtracts - Biochem. Mol. Biol.* **3**, 166-168 (1992).
- Wetmur, J.G. Analysis: Jwang, *et al.*, Torsional stress generated by RecA protein during DNA strand exchange separates strands of a heterologous insert [Proc. Natl. Acad. Sci. USA **89**:7596-7580, 1992]. *Chemtracts - Biochem. Mol. Biol.* **3**, 384-386 (1992).
- Kaya, A.H., Plewinska, M., Wong, D.M., Desnick, R.J. & Wetmur, J.G., Human δ -aminolevulinate dehydratase gene: Structure and alternative splicing of the erythroid and housekeeping mRNAs. *Genomics* **19**, 242-248 (1994).
- Wetmur, J.G. Influence of the common human δ -aminolevulinate dehydratase polymorphism on lead body burden. *Environ. Health Persp.* **102**, suppl. **3**, 215-219 (1994).
- Wong, D.M. & Wetmur, J.G., Some class IIs restriction endonucleases can cleave across a three-way junction. *Gene* **150**, 63-66 (1994).
- Wetmur, J.G. Analysis: Nakazawa, *et al.*, UV and skin cancer: Specific p53 gene mutation in normal skin as a biologically relevant exposure measurement [Proc. Natl. Acad. Sci. USA **91**:360-364, 1994]. *Chemtracts - Biochem. Mol. Biol.* **5**, 114-116 (1994).
- Wetmur, J.G. Analysis: Lisitsyn, *et al.*, Direct isolation of polymorphic markers linked to a trait by genetically directed representational difference analysis [*Nature Genetics* **6**:57-63, 1994]. *Chemtracts - Biochem. Mol. Biol.* **5**, 163-165 (1994).
- Wetmur, J.G., Wong, D.M., Ortiz, B., Tong, J., Reichert, F. & Gelfand, D.H., Cloning, sequencing and expression of RecA proteins from three distantly related thermophilic eubacteria. *J. Biol. Chem.* **265**, 25928-25935 (1994).
- Wetmur, J.G. Nucleic acid hybrids, formation and structure of. *In: Molecular Biology and Biotechnology: A Comprehensive Desk Reference*, Myers, R.A., ed., VCH Publishers, New York, pp 605-608 (1995).
- Wetmur, J.G. & Sninsky, J.J. Nucleic acid hybridization and unconventional bases. *In: PCR Strategies*, Innis, M.A., Gelfand, D.H. and Sninsky, J.J., eds, Academic Press, San Diego, pp 69-83 (1995).
- Wetmur, J.G. Nucleic Acid Hybrids, Formation and Structure of. *In: Encyclopedia of Molecular Biology and Molecular Medicine*, Myers, R.A., ed., VCH Publishers, New York, pp 235-243 (1996).
- Todd, A.C., Wetmur, J.G., Moline, J.H., Godbold, J.H., Levin, S.M. & Landrigan, P.J., Unravelling the chronic toxicity of lead: an essential priority for environmental health. *Environ. Health Persp.* **104**, suppl. **1**, 141-146 (1996).
- Tong, J. & Wetmur, J.G. Cloning, sequencing, expression, and characterization of RuvB proteins from two distantly related thermophilic eubacteria. *J. Bacteriol.* **178**, 2695-2700 (1996).
- Bobovnikova, Y., Kim, S.-Y. & Wetmur, J.G. Insert selection by *Bam*HI-methyltransferase protection in P1 phage-based cloning. *Gene* **170**, 39-44 (1996).
- Bergdahl, I.A., Gerhardsson, L., Schütz, A., Desnick, R.J., Wetmur, J.G. & Skerfving, S. The ALAD polymorphism: Influence on lead levels and kidney function in humans. *Arch. Environ. Health* **52**, 91-96 (1997).
- Bergdahl, I.A., Grubb, A., Schütz, A., Desnick, R.J., Wetmur, J.G., Sassa, S. & Skerfving, S. Lead binding to δ -aminolevulinic acid dehydratase (ALAD) in human erythrocytes. *Pharmacology and Toxicology* **81**, 153-158 (1997).
- Claudio, L., Lee, T., Wolff, M.S. & Wetmur, J.G. A murine model of genetic susceptibility to lead

- bioaccumulation. *Fundamental and Applied Toxicology* **35**, 84-90 (1997).
- Wetmur, J.G. (1998) Nucleic Acid Hybridization. In: Proceedings of the Third DIMACS Workshop on DNA Based Computers. In Press.
- Fleming, D.E.B., Wetmur, J.G., Desnick, R.J., Robin, J.-P., Boulay, D., Richard, N.S., Gordon, C.L., Webber, C.E. & Chettle, D.R. (1998) The δ -aminolevulinate dehydratase polymorphism and lead in blood and bone. *Environmental Research*. In Press.
- Rao, H.G.V, Rosenfeld, A & Wetmur, J.G. (1998) *Methanococcus jannaschii* flap endonuclease: expression, purification and substrate requirements. *J. Bacteriol.* Submitted.

PATENTS ISSUED:

- Stavrianopolous, J., Rabbani, E., Abrams, S.B. & Wetmur, J.G., Analyte detection by means of energy transfer [Chem. Abstr. **108**, 201342k (1988)]. U.S. patent 4,868,103 (9/19/89).
- Desnick, R.J. & Wetmur, J.G., Determining susceptibility to lead poisoning by detection of polymorphisms in the δ -amino levulinate dehydratase gene. [Chem. Abst. **118**, 206954c (1993)]. U.S. patent 5,639,607 (6/17/97).

PATENTS PENDING:

- Brakel, C.L., Wetmur, J.G., and Quartin, R.S., Nuclear resistance in oligonucleotides with modified bases in phosphodiester bonds.
- Wetmur, J.G., Quartin, R.S., and Engelhardt, D., Branch migration of oligo- and polynucleotides and their stabilization with displacer sequences.
- Wetmur, J.G., cloning and expression of thermostable MutS genes and proteins and uses thereof.

RESEARCH PRESENTATIONS AND LECTURES, 12/91 - present

Hybridization and Branch Migration

- 91: First International Workshop of Sequencing by Hybridization, Moscow, Russia: Opening speaker on Nucleic Acid Hybridization
- 92: Mount Sinai Department of Biochemistry: Seminar on Branch Capture Reactions
- 92: University of California, San Francisco, Department of Laboratory Medicine: Seminar on Branch Capture Reactions
- 92: Affymax Research Institute, Palo Alto, CA: Seminar on Branch Capture Reactions
- 92: Roche Molecular Systems, Alameda, CA: Seminar on Branch Capture Reactions
- 93: Second International Workshop of Sequencing by Hybridization, The Woodlands, TX: Speaker on Nucleic Acid Hybridization
- 94: New Horizons in Gene Amplification Technologies, San Francisco, CA: Speaker on Nucleic Acid Hybridization
- 94: Abbott Laboratories, Abbott Park, IL: Seminar on Nucleic Acid Hybridization
- 95: Abbott Laboratories, Abbott Park, IL: Four hour Course on Nucleic Acid Hybridization
- 97: Rockefeller University, Center for Studies in Physics and Biology, New York, NY: Seminar on DNA Hybridization
- 97: DNA-Based Computer Conference, Philadelphia, PA: Opening Speaker on Nucleic Acid Hybridization

Nucleic Acid Enzymology

- 92: Nucleic Acids Gordon Research Conference: Presentation on Class IIS Restriction Endonucleases
- 93: Roche Molecular Systems, Alameda CA: Seminar on Thermophilic RecA Proteins
- 93: Genetic Recombination and Genome Rearrangements, FASEB, Copper Mountain CO: Presentation on Thermophilic RecA Proteins
- 93: Genome Mapping and Sequencing, Cold Spring Harbor, NY: Presentation on Insert Selection by Methylase Protection
- 93: Thermophiles '93, Hamilton, New Zealand: Speaker on Thermophilic RecA Proteins
- 94: American Society for Microbiology Annual Meeting, Las Vegas, NV: Presentation on Thermophilic RecA Proteins
- 94: Roche Molecular Systems, Alameda, CA: Seminar on Thermophilic Accessory Proteins
- 94: UMDNJ Department of Biochemistry, Newark, NJ: Seminar on Thermophilic RecA Proteins
- 95: Repair and Processing of DNA Damage (Keystone Meeting): Presentation on RuvB Helicase
- 95: Roche Molecular Systems, Alameda CA: Seminar on Allele-Specific PCR (7/95)
- 95: Roche Molecular Systems, Alameda CA: Update on Allele-Specific PCR (12/95)
- 96: Integrated Genetics, Framingham, MA: Seminar on Allele-Specific PCR
- 96: Thermophiles '96 Biannual Meeting: Presentation on MutS proteins
- 97: Mount Sinai Department of Human Genetics: Seminar of Mismatch Repair Proteins of Thermophiles
- 97: Roche Molecular Systems, Alameda CA: Seminar on Thermostable Mismatch Repair Proteins and Flap Endonucleases

ALAD (δ -Aminolevulinate Dehydratase) and Lead

- 92: American Society of Human Genetics Annual Meeting, San Francisco, CA: Presentation on Human ALAD Genetics
- 92: Mount Sinai Department of Community Medicine: Seminar on ALAD and Lead
- 92: New York University Institute of Environmental Medicine: Seminar on ALAD and Lead
- 93: Molecular Mechanisms of Metal Toxicity and Carcinogenesis, Madonna di Campiglio, Italy: Speaker on ALAD and Lead
- 96: American Society of Human Genetics Annual Meeting, San Francisco, CA: Presentation on Human ALAD Genetics and Lead
- 97: Bioethics Symposium, Dearborn, MI: Speaker on Genetic Influences on Lead Poisoning
- 98: American Society of Toxicology Annual Meeting, Seattle, WA: Speaker on Genetic Influences on Lead Poisoning